

ABSTRACT OF THE DISCLOSURE

5 A stepping motor is provided, which includes: exciting coils; a rotor provided with a plurality of N/S poles so as to rotate following a change of an excitation state of the exciting coils; and a detecting coil provided separately from the exciting coils so as to generate induction voltage according to rotation of the rotor. And, a driving apparatus including the stepping motor is provided, which further includes: a driven member linked with the rotor; a stopper to mechanically stop the driven member at a predetermined position; a first exciting means to normally or reversely rotate the rotor by controlling the excitation state of the exciting coils; a second exciting means to reverse the rotor in a direction of making the driven member move toward the predetermined position by controlling the excitation state of the exciting coils; a position detecting means to detect the driven member having abutted the stopper and stopped at the predetermined position on a basis of induction voltage generated in the detecting coil during control by the second exciting means; and a controlling means which stops the first exciting means controlling and starts the second exciting means controlling when an instruction signal is inputted, and which starts the first exciting means controlling and stops the second exciting means controlling when the position detecting means detects the driven member having stopped at the predetermined position.

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A stepping motor which includes: exciting coils; a rotor provided with a plurality of N/S poles so as to rotate following a change of an excitation state of the exciting coils; and a detecting coil provided separately from the exciting coils so as to generate induction voltage according to rotation of the rotor. A driving apparatus including the stepping motor is provided, which further includes: a driven member linked with the rotor; a stopper to mechanically stop the driven member at a predetermined position; a first exciting means to normally or reversely rotate the rotor by controlling the excitation state of the exciting coils; a second exciting means to reverse the rotor in a direction of making the driven member move toward the predetermined position by controlling the excitation state of the exciting coils; a position detecting means to detect the driven member having abutted the stopper and stopped at the predetermined position on a basis of induction voltage generated in the detecting coil during control by the second exciting means; and a controlling means which stops the first exciting means controlling and starts the second exciting means controlling when an instruction signal is inputted, and which starts the first exciting means controlling and stops the second exciting means controlling when the position detecting means detects the driven member having stopped at the predetermined position.